

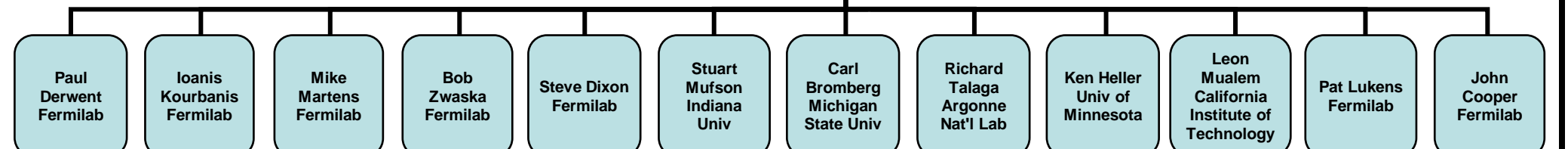


## NOVA Dollarized RAM

Director Pier Oddone  
Deputy Director Y. K. Kim  
Associate Director for Research Greg Bock  
Associate Director for Accelerators S. Holmes

Particle Physics Division Greg Bock, (acting) Head

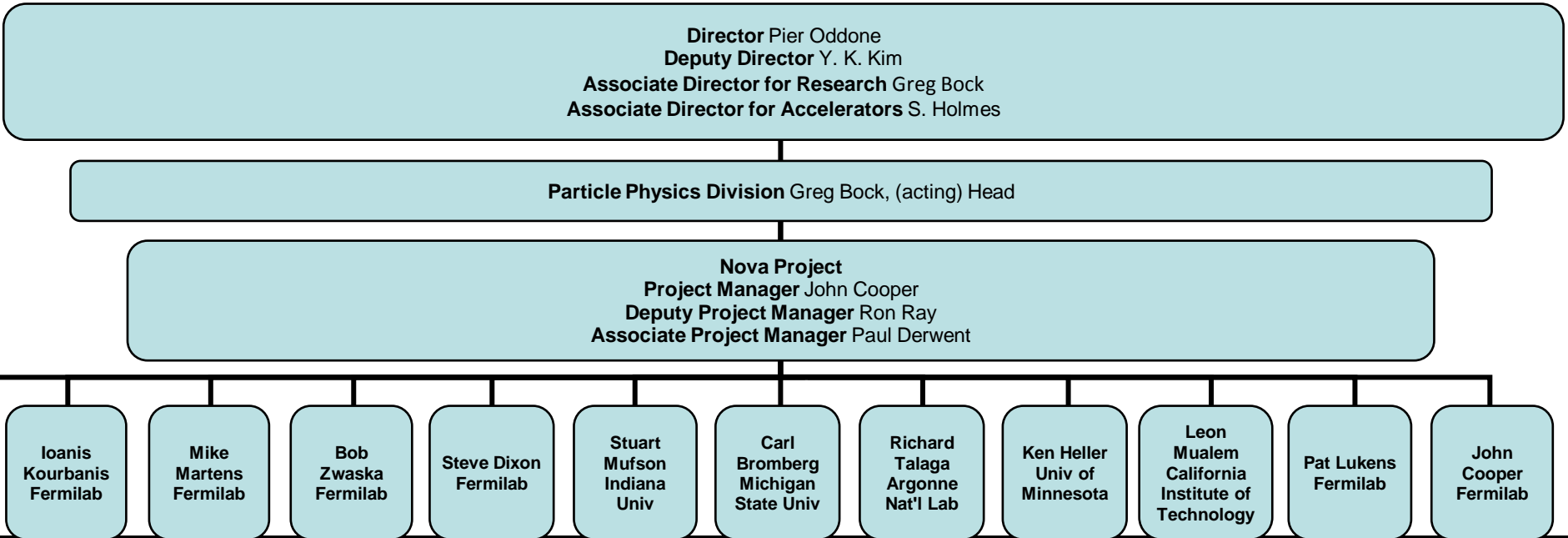
Nova Project  
Project Manager John Cooper  
Deputy Project Manager Ron Ray  
Associate Project Manager Paul Derwent



Control Account Manager Budget					\$28,002,057	\$2,843,728	\$7,848,893	\$82,092	\$50,809,570	\$18,787,261	\$10,421,694	\$26,624,394	\$11,895,185	\$18,232,364	\$18,506,246	\$14,746,055
Value of Control Account Budgets as LOE					\$5,646,014	\$0	\$0	\$66,019	\$7,214,382	\$1,755,219	\$50,771	\$1,623,332	\$2,491,317	\$513,488	\$1,848,345	\$14,746,055
WBS	Activity Description	Account Level	CTC?	% of acct as LOE												
1	Nova R&D	Nova Reporting Level														
1.0	ANU R&D	Nova Reporting Level														
1.0.1	RR Upgrades	Control account		0.09%	\$5,248,666											
1.0.2	MI Upgrades	Control account		0.00%		\$1,037,303										
1.0.3	NUMI Upgrades	Control account		0.00%			\$2,118,285									
1.0.4	ANU Beam Physics	Control account	CTC	80.42%				\$82,092								
1.0.5	ANU Project Management	Control account	CTC	100.00%	\$344,698											
1.1	Site and Building R&D	Control account	CTC	0.00%					\$2,274,519							
1.2	Liquid Scintillator R&D	Control account		56.79%						\$271,245						
1.3	WLS Fiber R&D	Control account		3.85%							\$340,909					
1.4	PVC Extrusion R&D	Control account		18.51%								\$1,348,394				
1.5	PVC Module R&D	Control account		12.79%									\$1,589,549			
1.6	Electronics R&D	Control account		4.95%										\$1,473,437		
1.7	DAQ R&D	Control account		8.77%										\$1,383,728		
1.8	Detector Assembly R&D	Control account		5.23%											\$2,850,906	
1.9	Project Management R&D	Control account		100.00%												\$9,184,127
2	Nova Construction	Nova Reporting Level														
2.0	ANU Construction	Nova Reporting Level														
2.0.1.1	Recycler Ring Modifications	Control account		0.86%	\$7,916,804											
2.0.1.2	Recycler Kicker System	Control account		0.87%	\$7,910,714											
2.0.1.3	Recycler Instrumentation	Control account		0.00%	\$1,421,492											
2.0.2.1	MI Modifications	Control account		0.00%		\$373,332										
2.0.2.2	MI RF Cavities	Control account		0.00%		\$1,433,092										
2.0.3.1	NuMI Primary Proton Beam	Control account		0.00%			\$1,450,655									
2.0.3.2	NuMI Target Hall Technical Components	Control account		0.00%			\$1,634,201									
2.0.3.3	NuMI Target Hall Infrastructure	Control account		0.00%			\$1,716,959									
2.0.3.4	NuMI Decay Pipe/Hadron Absorber/Utilities	Control account		0.00%			\$928,793									
2.0.4	Project Management - ANU - Construction	Control account	CTC	100.00%	\$5,159,684											
2.1	Site and Building	Nova Reporting Level														
2.1.1	Site Preparation Package	Control account		12.46%					\$11,530,402							
2.1.2	Far Detector Building	Control account		15.77%					\$36,637,247							
2.1.3	Site and Building Security	Control account	CTC	0.00%					\$195,804							
2.1.4	Management - Site and Building - Construction	Control account		0.00%					\$171,599							
2.2	Liquid Scintillator	Nova Reporting Level														
2.2.1	Mineral Oil	Control account	CTC	9.66%						\$12,687,277						
2.2.2	Pseudocumene	Control account	CTC	12.88%						\$1,289,109						
2.2.3	Waveshifters and Stadis 425	Control account	CTC	0.00%						\$2,242,996						
2.2.4	Blending	Control account	CTC	15.49%						\$747,442						
2.2.5	Transport - Liquid Scintillator	Control account	CTC	0.00%						\$1,455,419						
2.2.6	Management - Liquid Scintillator - Construction	Control account	CTC	100.00%						\$93,772						
2.3	WLS Fiber	Nova Reporting Level														
2.3.1	Procurement - WLS Fiber	Control account	CTC	0.00%							\$84,360					
2.3.2	Production - WLS Fiber	Control account	CTC	0.00%							\$9,958,779					
2.3.3	Management - WLS Fiber - Construction	Control account	CTC	100.00%							\$37,646					
2.4	PVC Extrusions	Nova Reporting Level														
2.4.1	Procurement - PVC Extrusions	Control account	CTC	0.00%								\$177,691				
2.4.2	Extrusion Pre-Production	Control account	CTC	0.00%								\$1,172,758				
2.4.3	Extrusion Production	Control account	CTC	0.00%								\$21,776,474				
2.4.4	Production Quality Assurance and Extrusion Evaluation	Control account	CTC	72.45%								\$605,199				
2.4.5	Shipping & Handling - PVC Extrusions	Control account	CTC	22.18%								\$782,062				
2.4.6	Management - PVC Extrusions - Construction	Control account	CTC	100.00%								\$761,816				
2.5	PVC Modules	Nova Reporting Level														
2.5.1	End Seals	Control account		0.00%									\$1,798,372			
2.5.2	Optical Connector Production	Control account	CTC	0.00%									\$118,077			
2.5.3	Module Production	Control account		19.76%									\$7,603,656			
2.5.4	Management - PVC Modules - Construction	Control account	CTC	100.00%									\$785,531			
2.6	Electronics	Nova Reporting Level														
2.6.1	APD Module Production	Control account		0.00%										\$6,288,235		



NOvA Dollarized RAM



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Value of Control Account Budgets as LOE					\$5,646,014	\$0	\$0	\$66,019	\$7,214,382	\$1,755,219	\$50,771	\$1,623,332	\$2,491,317	\$513,488	\$1,848,345	\$14,746,055
WBS	Activity Description	Account Level	CTC?	% of acct as LOE												
2.6.2	Readout - FEB	Control account		0.64%										\$2,610,747		
2.6.3	Readout Infrastructure	Control account		0.00%										\$2,905,067		
2.6.4	Management - Electronics - Construction	Control account	CTC	100.00%										\$39,179		
2.7	DAQ	Nova Reporting Level														
2.7.1	DAQ Software	Control account	CTC	0.00%										\$778,265		
2.7.2	DAQ Hardware	Control account		0.00%										\$2,100,306		
2.7.3	Integration - DAQ	Control account	CTC	58.01%										\$441,042		
2.7.4	Detector Control System - DAQ	Control account	CTC	0.00%										\$204,894		
2.7.5	Management - DAQ - Construction	Control account	CTC	100.00%										\$7,464		
2.8	Near Detector Assembly	Nova Reporting Level														
2.8.1	Near Detector Site Preparation	Control account	CTC	0.40%											\$3,578,374	
2.8.2	Mechanical Construction and Installation - Near Detector	Control account	CTC	0.00%											\$492,573	
2.8.3	Liquid Scintillator Filling Equipment - Near Detector	Control account	CTC	0.00%											\$54,128	
2.8.4	Installation Coordination - Near Detector	Control account	CTC	0.00%											\$32,051	
2.8.5	Management - Near Detector Assembly - Construction	Control account	CTC	100.00%											\$91,930	
2.9	Far Detector Assembly	Nova Reporting Level														
2.9.1	Mechanical Systems - Far Detector Assembly	Control account		0.00%											\$1,790,369	
2.9.2	Detector Infrastructure - Far Detector Assembly	Control account		0.00%											\$475,003	
2.9.3	Scintillator Filling Equipment - Far Detector Assembly	Control account		0.00%											\$468,394	
2.9.4	Block Assembly and Installation - Far Detector Assembly	Control account		8.12%											\$7,705,179	
2.9.5	Management - Far Detector Assembly - Construction	Control account	CTC	100.00%											\$967,339	
2.10	Project Management - Nova Project - Construction	Control account	CTC	100.00%												\$5,561,928